

REMARKS

Applicants respectfully request reconsideration of this application, and reconsideration of the Office Action dated February 8, 2005. Upon entry of this Amendment, claims 42 and 44-46 will remain pending in this application. The changes to claim 42 are supported by the specification and original claims (i.e. original claims 21, 28, 34, and 43). No new matter is incorporated by this paper.

Applicants gratefully acknowledge the Examiner's express indication that claims 45 and 46 contain allowable subject matter. While claims 45 and 46 are objected to, the Examiner indicated these two claims would be allowable if rewritten in independent form including all of the limitations of their base claims and any intervening claim. In response, claim 45 has been amended as suggested. Moreover, since claim 46 depends from claim 45, both claims are believed to be in condition for allowance. Moreover, Applicants submit the amendment to claim 45 does not change the original scope of the claim.

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Claims 42-44 are rejected under 35 U.S.C. § 103(a) as purportedly obvious based on Hoppin et al. (EP 0 250 229). Applicants respectfully traverse this rejection.

The Office Action asserts the third formula on page 3, line 15 of Hoppin differs from the claimed invention in that it contains a tetramethylene backbone rather than a pentamethylene backbone. The Office Action further asserts the difference would have been obvious because Hoppin teaches that n values of 4, 5, and 6 can be used with the expectation of comparable results. In addition, the Office Action asserts compounds which are position isomers or homologs are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. The Office Action thus concludes Hoppin renders the claimed invention obvious.

Applicants respectfully submit that claims 42-44 would not have been obvious over Hoppin.

Claim 42 has been amended to limit the R¹ and R² radicals in the dialkoxysilacyclohexane to ethyl radicals and the X and Y radicals to methyl groups. Moreover, claim 44 is drawn to a specific compound, namely “1,1-Dimethoxy-2,6-diethylsilacyclohexane.”

Considering this rejection in the light most favorable to the Office, at best, Hoppin generically discloses a silacycle.¹ Even if a claimed species or sub-genus is broadly encompassed by a prior art genus, however, this fact alone is not sufficient to establish a *prima facie* case of obviousness. See, for example, *In re Baird*, 16 F.3d 380, 382, 29 U.S.P.Q. 2d 1550, 1552 (Fed. Cir. 1994) and *M.P.E.P.* § 2144.08. The Federal Circuit’s decision in *Baird* prompted the U.S. PTO to issue guidelines to assist its examiners in properly applying 35 U.S.C. § 103 in a genus/sub-genus/species situation. These guidelines are set forth in *M.P.E.P.* § 2144.08, which includes a flow chart. This flow chart clearly illustrates the proper analytical procedure to be applied by U.S. PTO examiners in determining whether a generic prior art disclosure renders *prima facie* obvious a claimed sub-genus or species. Proper application of the guidelines in this case compels a finding that Applicants’ claimed invention is not rendered *prima facie* obvious by Hoppin.

According to the guidelines, after considering the traditional *Graham v. John Deere* factors, one must consider whether the skilled artisan would have been motivated to select the claimed sub-genus or species. In this case, Applicants’ claim 42 is drawn to a dialkoxysilacyclohexane of a specific formula wherein the R¹ and R² radicals are ethyl groups and the X and Y radicals are methyl groups. Moreover, claim 44 is drawn to 1,1-Dimethoxy-2,6-diethylsilacyclohexane. As a first step in the § 103 analysis, one must

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While Applicants do not admit or necessarily agree that Hoppin generically encompasses the presently claimed invention, for purposes of the arguments that follow, Applicants will assume *arguendo* that the disclosure in Hoppin generically encompasses the claimed process and process gas.

consider the size of the genus disclosed in the reference and determine whether the reference inherently discloses the claimed combination. Hoppin discloses a substituted silacycles having the formula $(\text{cycloC}_n\text{R}_{2n})_2\text{Si}(\text{OCH}_3)_2$ wherein R=hydrogen or an alkyl group having about 1 to 5 carbon atoms and $n=4-6$. The above formula thus corresponds to a very large number of chemical compounds. Accordingly, the genus disclosed by Hoppin is not so small that each member thereof is inherently disclosed.

The next step in the § 103 analysis requires a determination of whether express teachings in the reference would have motivated selection of Applicants' claimed dialkoxysilacyclohexane. Again, the answer to this question is "no." In addition to the broad, generic teachings in Hoppin as described above, Hoppin teaches a compound having a backbone that can be 4 to 6 carbons as well as numerous combinations of substituents. Nothing in Hoppin steers a person of ordinary skill in the art toward Applicants' specifically claimed dialkoxysilacyclohexane. Notably, all of the substituted silacycles shown in Hoppin are based on a tetramethylene backbone. Moreover, none of the specific silacycles described by Hoppin include a backbone based on a pentamethylene. Thus, no express teachings in Hoppin would have motivated selection of Applicants' specifically claimed compounds which have a pentamethylene backbone.

The guidelines indicate that the next step in the § 103 analysis requires consideration of whether the reference teaches structural similarity between the disclosed optimum or preferred prior art embodiments and the claimed sub-genus. As described above, the specific compounds used by Hoppin differs significantly from Applicants' claimed compounds. Nothing in Hoppin discloses or suggests that his compound is structurally similar to Applicants' very different compound.

The final step in the § 103 analysis requires consideration of whether any other teachings in the reference support selection of the claimed sub-genus. This is a final catch-all category that allows consideration of information not specifically considered in

the remainder of the proper § 103 analysis. Other than Hoppin's broad, generic teachings, nothing in this document teaches or suggests selection of Applicants' specifically claimed sub-genus. Broad, generic teachings alone, however, are not sufficient to establish *prima facie* obviousness. See *In re Baird, supra* and *M.P.E.P.* § 2144.08.

In view of the foregoing, Applicants respectfully submit that the 35 U.S.C. § 103 analysis, using the U.S. PTO guidelines set forth in *M.P.E.P.* § 2144.08, compels a determination that Hoppin fails to render claims 42-44 *prima facie* obvious. Withdrawal of this rejection on this basis is respectfully requested.

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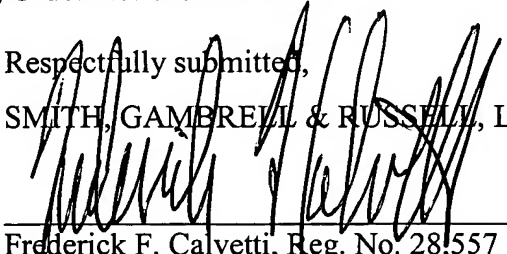
Applicants respectfully submit this Amendment and the above remarks obviate the outstanding objection and rejection in this case, thereby placing the application in condition for immediate allowance. Allowance of this application is earnestly solicited.

If any fees under 37 C.F.R. §§ 1.16 or 1.17 are due in connection with this filing, please charge the fees to Deposit Account No. 02-4300; Order No. 033808.0764.

If an extension of time under 37 C.F.R. § 1.136 is necessary that is not accounted for in the papers filed herewith, such an extension is requested. The extension fee should be charged to Deposit Account No. 02-4300; Order No. 033808.0764

Respectfully submitted,
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